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EXAMINER	
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/539,784	YUN ET AL.	
	Examiner	Art Unit	
	RONAK C. PATEL	4132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 June 2005 (Prelim. Amend.)*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) *17 and 18* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 19-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20050630*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

2. In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-16 and 19-33 drawn to a halogen free winding tape composed of two layer film and optionally an adhesive layer.

Group II, claim(s) 17, drawn to a method of making a winding tape composed of a two layer film and optionally an adhesive layer.

Group III, claim(s) 18, drawn to a method of using a winding tape composed of a two layer film and optionally an adhesive layer

3. A halogen free winding tape composed of a two layer film, the subject matter of Claim 1, is a common technical feature of inventions I, II and III. However, Kocsis et al. (US 5300360) discloses this subject matter. Kocsis et al. teaches a double layered halogen free film which has a first layer of ethylene-methacrylic acid resins and an ethylene acrylic acid resins (col 4, lines 9-15) and a second layer of ethylene polymer such as polyethylene (col 4, lines 58-65), which would be an adhesive layer having a melt index of less than 10g/10 min (claim 2). Thus, halogen free multilayer film is not a technical feature and claims 1-33 fail to form a single general inventive concept. Therefore, unity of invention is lacking and restriction is proper.

4. **Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined** even though the Requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected invention**.

5. The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention.

6. If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

7. Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

8. During a telephone conversation with WILLIAM GERSTANZANG on July 9, 2009 a provisional election was made with traverse to prosecute the invention of product,

claims 1-16 and 19-33. Affirmation of this election must be made by applicant in replying to this Office action. Claims 17 and 18 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

9. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

10. In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP

§ 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder**. Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

12. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory

double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

13. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1-9, 12, 15-18, and 20-21 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4, 6-12, 14, 16, 18-19 and 21-22 of copending Application No. 10/570776, respectively. Although the conflicting claims are not identical, they are not patentably distinct from each other.

15. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

16. Claims are not patentably distinct from each other because the subject matter claimed in the instant application is rendered obvious by claims claimed in the conflicting application.

Table 1

Application # 10/539784 claims	***Application # 10/570776 claims***
Claim 1 (original). An easy-tear, halogen-free winding tape composed of a film layer and of an adhesive layer, the film comprising a copolymer of (a) a-olefin of the formula R-CH=CH2, where R is hydrogen or an alkyl radical having 1 to	1. Claim 1 (currently amended). A halogen-free winding tape composed of an at least two-layer film and, ~~preferably~~ optionally, of an adhesive layer applied thereto, ~~characterized~~ in that wherein the film comprises A) a first layer containing a copolymer of (a)

10 carbon atoms, and (b) an a,13-ethylenically unsaturated carboxylic acid of 3 to 8 carbon atoms, and (c) optionally a further monoethylenically unsaturated monomer, 10 to 90% of the hydrogen atoms of the carboxylic acid groups of the copolymer being substituted by metal ions as a result of neutralization. Claim 15. The winding tape of at ~~least one of the preceding claims, characterized in that~~ claim 2, wherein the copolymer-containing film ~~layer has been~~ coextruded with a further film layer which comprises a ~~polymer, in particular~~ an ethylene-based polymer, the ethylene-based polymer having a melt index of preferably less than 10 g/10 min, ~~in particular less than 6 g/l0 min.~~	an a-olefin of the formula R-CH=CH2, where R is hydrogen or an alkyl radical having 1 to 10 carbon atoms, and (b) an a,13-ethylenically unsaturated carboxylic acid of 3 to 8 carbon atoms, and (c) optionally a further monoethylenically unsaturated monomer, 10 to 90% of the carboxylic acid groups of the copolymer being substituted by metal ions as a result of neutralization, and B) at least one further, second layer of an ethylene polymer having a melt index of less than 8 g/10 min at 2.16 kg and 190°C.
Claim 3 (currently amended). The winding tape of at ~~least one of the preceding claims, characterized in that~~ claim 1, wherein the fraction of copolymer is'at least 10% by weight ~~and preferably at least 50% by weight.~~	2. (currently amended). The winding tape of claim 1, ~~characterized in that~~ wherein the fraction of copolymer is at least 10% by weight ~~and preferably at least 50% by weight.~~
Claim 13 (currently amended). The winding tape of ~~at least one of the preceding claims, characterized in that~~ claim 1, wherein the film layer ~~has been~~ is produced by calender processing, in which case the melt index of the copolymer is below 5 g/10min, ~~preferably below 1 g/lO min and in particular below 0.7 g/10 min,~~ and/or extrusion processing, in which case the melt index of the copolymer is between 0.2 and 10 g/lO min, ~~in particular between 0.5 and 5 g/lO min.~~	3. (currently amended). The winding tape of claim 1 er-2-, ~~characterized in~~ that wherein the melt index of the copolymer is below 10 g/10 ~~min, preferably below l g/10 min,~~ at 2.16 kg and 190°C.
Claim 2 (currently amended). The winding tape of claim 1, ~~characterized in that~~	4. (Currently amended). The winding tape of at ~~least one of claims 1 to 3, characterized in that~~ claim 1, wherein the

wherein the metal ions of the copolymer is are monovalent to trivalent and comes ~~preferably~~ optionally from groups I, II, III, IV-A and VII of the Periodic Table ,--mere ~~preferably from the alkali metals of the group, particularly sodium.~~	metal ions are monovalent to trivalent, ~~preferably from the alkali metals group, particularly sodium.~~
Claim 4 (currently amended). The winding tape of at ~~least one of the preceding claims,~~ 'characterized ~~in that~~ claim 1, wherein the film layer ~~has been~~ is produced by blown-film extrusion.	6. (currently amended). The winding tape of ~~at least one of the preceding claims, characterized in that~~ claim 1, wherein the film is produced by blown- film extrusion.
Claim 5 (currently amended). The winding tape of at ~~least one of the preceding claims, characterized in that~~ claim 1, wherein the longitudinal draw ratio (ratio of film winding speed to melt speedin the die) is 2 to 25, ~~preferably from 5 to 10,~~ the frost line is smaller than 160 cm, the longitudinal draw ratio divided by the frost line is greater than 0.1 cm1, ~~preferably greater than 0.2 cm4~~ the blow-up ratio is situated in the range from 1 to 4, ~~preferably from 1.8 to 2.5,~~ and/or the die gap is situated in the range from 1 to 1.6 mm.	7. (currently amended). The winding tape of ~~at Least one of the preceding claims, characterized in that~~ claim 1, wherein • the longitudinal draw ratio (ratio of film winding speed to melt speed in the die) is 2 to 25, ~~preferably 5 to 10,~~ • the frost line is smaller than 160 cm, • the longitudinal draw ratio divided by the frost line is greater than 0.1 cm-1, ~~preferably greater than 0.2 cm4~~ • the blow-up ratio is situated in the range from 1 to 4, ~~preferably from 1.8 to 2.5,~~ and/or • the die gap is situated in the range from 1 to 1.6 mm.
Claim 6 (currently amended). The winding tape of at ~~least one of the preceding claims, characterized in that~~ claim 1, wherein the tensile strength as determined by the method of Elmendorf in the machine direction is at least twice, ~~preferably at least four~~ the tensile strength in the cross direction.	8. (currently amended). The winding tape of ~~at least one of the preceding claims, characterized in that~~ claim 1, wherein the tensile strength by the method of Elmendorf in the machine direction is at least twice, ~~preferably at least four~~ the tensile strength in the cross direction.
Claim 7 (currently amended). The winding tape of at ~~least one of the preceding claims, characterized in that~~ claim 1, wherein film layer thickness is from 30 to 180 pm,	9. (currently amended). The winding tape of ~~at least one of the preceding claims, characterized in that~~ claim 1, wherein • film layer thickness is from 30 to 180 IJm,

~~in particular 55 to 100 pm,~~ force at 1% elongation in machine direction is 0.6 to 4 N/cm, force at 100% elongation is from 5 to 20 N/cm, breaking elongation is 200 to 1000%, ~~preferably 30 to 400%,~~ tensile strength is 6 to 40, ~~preferably 8 to 15 N/cm~~ and/or breakdown voltage is at least 5 kV/100 pm.

Claim 8 (currently amended).
The winding tape of at ~~least one of the preceding claims,~~
~~characterized in that~~ claim 11 wherein there is a primer layer between film layer and adhesive layer, the amount of the adhesive layer is 10 to 40 g/m2, ~~preferably 18 to 28 g/m=~~ ~~the bond strength to steel is 1.5 to 3 N/cm, the unwind force is 1.2 to 6.0 N/cm at an unwind speed of 300 mm/min unwind speed, preferably 1.6 to 4.0 N/cm, more preferably 1.8 to 2.5 Nlcm,~~ and/or the holding power is more than 150 min.

Claim 9 (currently amended).
The winding tape of at ~~least one of the preceding claims,~~
~~characterized in that~~ claim 1, wherein the winding film comprises a solvent-free pressure-sensitive adhesive which is produced by coextrusion, melt coating or dispersion coating, ~~preferably a pressure-sensitive dispersion adhesive, this~~ the surface of the film to which the adhesive is applied being joined to the surface of the carrier film by means of being subjected to flame or corona pretreatment or el-an being provided with adhesion promoter layer which is applied by coextrusion or coating.

Claim 12 (currently amended).
The winding tape of ~~at least one of the preceding claims,~~
~~characterized in that~~ claim 1, wherein the

~~in particular 55 to 100 pm,~~ • force at 1% elongation in machine direction is 0.6 to 4 N/cm, • force at 100% elongation is from 5 to 20 N/cm,
• breaking elongation is 200 to 1000%, ~~preferably 30 to 400%,~~ • tensile strength is 6 to 40, ~~preferably 8 to 15 N~~/cm and/or • breakdown voltage is at least 5 kV/100 pm.

10. (currently amended). The winding tape of ~~at least one of the preceding claims,~~ ~~characterized in that~~ claim 1, wherein
• there is a primer layer between film layer and adhesive layer,
• the amount of the adhesive layer is 10 to 40 g/m2, ~~preferably 18 to 28 g/m2=~~
• the bond strength to steel is 1.5 to 3 N/cm,
• the unwind force is 1.2 to 6.0 N/cm at 300 ram/rain unwind speed, ~~preferably 1.6~~ to 4.0 N/cm, more preferably 1.8 to 2.5 N/cm, and/or
• the holding power is more than 150 min.

11. (currently amended). The winding tape of at ~~least one of the preceding claims,~~ ~~characterized in that~~ claim 1, wherein the winding film comprises a solvent-free pressure-sensitive adhesive, ~~preferably polyacrylate-based.~~

12. (currently amended). The winding tape of ~~at least one of the preceding claims,~~ ~~characterized in that~~ claim 1, wherein the winding film is plasticizer-free or the

winding film is plasticizer-free or the plasticizer content is-se sufficiently low that the fogging number is above 90%

plasticizer content is so sufficiently low ~~that the~~ to produce a fogging number is above 90%.

Claim 16 (currently amended).
The winding tape of at ~~least one of the preceding claims, characterized in that~~ claim 1, wherein at least one layer of the winding tape ~~has been~~ is crosslinked, ~~preferably by ionizing radiation or by modification of a polymer with silane groups.~~

14. (currently amended). The winding tape of at ~~least one of the preceding claims, characterized in that~~ claim 1, wherein at least one layer of the winding tape ~~has been~~ is crosslinked, ~~preferably by ionizing radiation or modification of a polymer with silane groups.~~

Claim 17 (currently amended). A process for producing a the winding tape of ~~at least one of the preceding claims~~ claim 1, wherein
• the winding film is wound to logs, which then, to increase the unwind force, are conditioned by heat treatment and subsequently slit into rolls, the unwind force of the material thus produced at 300 mm/min being higher ~~preferably~~ by at least 50% than without such a measure, or
• **the winding film, for the purpose of increasing the unwind force, is subjected to a flame or corona treatment or is provided with a polar coextrusion layer and is subsequently processed into rolls, the unwind force of the material thus produced at 300 mm/min being higher ~~preferably~~ by at least 50% than without such a measure,**
or the winding film is slit by a process which leads, as a result of rough slit edges, to
easier hand tearability, the breaking elongation of the winding-film rolls thus slit being lower ~~preferably~~ by at least 30% than in the case of slitting with sharp blades,
• the winding film is slit on an automatic

16. (currently amended). A process for producing a the winding tape ~~of at least one of the preceding claims, characterized in that~~ claim 1, wherein the winding film, for the purpose of increasing the unwind force, is subjected to a flame or corona treatment or is provided with a polar coextrusion layer and is subsequently processed into rolls, the unwind force of the material thus produced at 300 mm/min being higher preferably by at least 50% than without such a measure.

slitter with defined knife advancement speed, • the winding film is wound on a core with an inside diameter of 30 to 40 mm~ ~~preferably of board.~~	
Claim 18 (currently amended). ~~The use of a winding tape of at least one of the preceding claim€.~~ A method for bundling, protecting, labeling, insulating or sealing ventilation pipes or wires or cables and for sheathing cable harnesses in vehicles or field coils for picture tubes1 which comprises bundling, protecting~ labeling~ insulating or sealing said ventilation pipes or wires or cables or sheathing said cable harnesses in vehicles or field coils for picture tubes with the winding tape of claim 1.	18. (currently amended). ~~The use of~~ a winding tape of at least one of the preceding claims A method for bundling, protecting, labeling, insulating or sealing ventilation pipes or wires or cables and for sheathing cable harnesses in vehicles or field coils for picture tubes which comprises bundling, protecting, labeling, insulating or sealing said ventilation pipes or wires or cables and sheathing said cable harnesses with the winding tape of claim 1.
Claim 22. The winding tape of claim 3, wherein said fraction is at least 50% by weight.	19. The winding tape of claim 2, wherein said fraction of said copolymer is at least 50% by weight.
Claim 20. The winding tape of claim 2, wherein said ions are alkali metals of said groups.	21. The winding tape of claim 4, wherein said metal ions are selected from the alkali metals group.
Claim 21. The winding tape of claim 20, wherein said alkali metal is sodium.	22. The winding tape of claim 21, wherein said metal ions are sodium.

17. Claim 1 of the conflicting Application # 10570776 claims the halogen free winding tape composed of at least a two layer and optionally of an adhesive layer applied thereto where the film comprises a copolymer of alpha-olefin of the formula R-CH=CH2, where R is hydrogen or an alkyl radical having 1 to 10 carbons, and an á,ß-ethylenically unsaturated carboxylic acid of 3 to 8 and optically a further

monoethylenically unsaturated monomer, 10 to 90% of the hydrogen atoms of the carboxylic acid groups of the copolymer being substituted by metal ions as a result of neutralization and at least one further, second layer of an ethylene polymer having a melt index of less than 8g/10min at 2.16 kg and 190ºC. This resulting subject matter would define a subgenus of Claim 1 of 10/539784 and hence anticipate Claim 1 of 10/539784, rendering Claim 1 of Serial. No. 10/539,784 unpatentable for obviousness-type double-patenting.

18. Regarding claims 2-9, 12, 15-18 and 20-21of the instant application, the scope of the claims 2, 4, 6, 7, 8, 9, 10, 11, 12, 14, 16, 18, 19, 21 and 22 of copending Application No. 10/570,776 is the same as that of claims 2-9, 12, 15-18 and 20-21, respectively, except for the differences already addressed above and so these claims are also unpatentable for obviousness-type double patenting over Serial No. 10/539,784.

Claim Rejections - 35 USC § 112

19. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

20. Claims 5 and 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

21. Regarding claims 5 and 23, it is unclear what is the antecedent basis of the various process-type limitations, e.g., "the longitudinal draw ratio." It is unclear whether

what is being specified is how the tape was formed, in which case these are product-by-process limitation, or whether a method is being claimed.

Claim Rejections - 35 USC § 102

22. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

23. Claims 1-4, 7, 12-15, 19-22, 25, 29, 30, 31and 32 are rejected under 35 U.S.C. 102 (b) as being anticipated by Kocsis ET al. (US 5300360).

24. Regarding claims 1 and 19, Kocsis does teach a multilayer halogen-free film having the first layer comprising a blend of acrylic acid such as ethylene acrylic acid resin, ethylene methacrylic acid (col 4, lines 9-15) and the second layer comprises an ethylene polymer such as LLDPE and LDPE, which would be an adhesive layer (col 4, lines 58-65).

25. As to claim 2, since the feature, "monoethylenically unsaturated monomer, 10 to 90% of the carboxylic acid groups of the copolymer being substituted by metal ions as a result of neutralization" set forth in claim 1 and further limited by claim 4, is optional. Since this feature may be absent, the claimed limitation is taught when the feature is absent.

26. Regarding claims 3 and 22, see discussion for claim 1. Kocsis discloses that the first layer which comprises copolymer of EAA resin is present in a blend in amount from

about 60 weight percent to about 80 weight percent (col 4, lines 49-57), which meets the claim limitation.

27. Regarding claim 4, see discussion for claim 1. Kocsis teaches the multilayer thermoplastic adhesive film is produced by a co-extrusion process (col 6, lines 35-40).

28. Regarding claims 7 and 25, see discussion for claim 1. Kocsis does mention the thickness of the first layer of the film, which is the film layer is about 29 microns to about 55 microns (col 6, lines 35-40) and the thickness of the second layer is about 6.4 microns to about 38.1 microns (col 6, lines 6-10), which meets the claim limitation of claims 7 and 25 wherein the film layer thickness is from 30 to 180 micrometer.

29. Regarding claim 12, see discussion for claim 1. Kocsis does not mention the use of plasticizer in the multilayer thermoplastic adhesive film, which makes the film plasticizer free and/or the plasticizer content is low fogging number above 90%.

30. Regarding claim 13, see discussion for claim 1. Kocsis discloses the first layer having the resin which has the melt index less than 5g/10min (claim 1) and the multilayer film is prepared by coextrusion process (col 6, lines 35-36).

31. Claims 14, 15, 31 and 32, see discussion for claim 1. Kocsis does teach a multilayer halogen-free film having the first layer comprising a blend of acrylic acid such as ethylene acrylic acid resin, ethylene methacrylic acid (col 4, lines 9-15) as discussed for claim 1 and the copolymer containing film layer is blended with the second layer comprises an ethylene polymer such as LLDPE and LDPE (col 4, lines 58-65) having a melt index of less than 10g/10min (claim 2).

32. As to claims 20 and 21, since the feature, "monoethylenically unsaturated monomer, 10 to 90% of the carboxylic acid groups of the copolymer being substituted by metal ions as a result of neutralization" set forth in claim 1 and further limited by claims 21 and 22, is optional. Since this feature may be absent, the claimed limitation is taught when the feature is absent.

33. Regarding claims 29 and 30, see discussion for claim 13 and 1. Kocsis discloses the first layer, which is a copolymer having the resin has the melt index less than 5g/10min (claim 1) and the film is prepared by the coextrusion process (col 6, line 35-36).

Claim Rejections - 35 USC § 103

34. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

35. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kocsis (US 5300360) as applied to claim 1 above, and further in view of Riedel (US 5679190).

36. Regarding claim 6, see discussion for claim 1. Kocsis fails to mention that the tensile strength by the method of Elmendorf in the machine direction is at least twice the tensile strength in the cross direction. However, Riedel mentions the pressure sensitive adhesive tape having the tensile strength in the machine direction is at least twice the

tensile strength in the cross direction (col 15, line 28). Riedel mentions the ratio of the tensile strength in the MD:CD is more than two in the PSA tape would have good tearable characteristics.

37. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the winding tape of the multilayer film with an adhesive layer of Kocsis to prepare a multilayer film that is hand tearable by having a ratio of tensile strength in the machine direction to be at least twice the tensile strength in the cross direction of Riedel by using the process conditions and test methods known in the art motivated by the desire to improve the tear properties of the film. All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable results.

38. Claims 8-11, 25, 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kocsis (US 5300360) as applied to claim 1 above, and further in view of Mientus (WO 99/64239).

39. Regarding claim 8, see discussion for claim 1. Kocsis fails to teach the winding tape has a primer layer between film layer and adhesive layer. However, Mientus discloses the multilayer thermoplastic film comprising a core layer, which corresponds to the film layer, abrasive resistant skin layer, which corresponds to an adhesive layer of the instant application and an intermediate layer, which corresponds to a primer layer which is placed between the core layer and an abrasive resistant skin layer (page 18,

lines 20-30). Mientus discloses the intermediate layer would help to improve the stiffness of the film as shown on page 18, line 30.

40. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the winding tape comprising a first layer and an second layer which is an adhesive layer of Kocsis with an intermediate layer of Mientus placed between the first layer and a second layer motivated by the desire to improve the stiffness of the film. All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable results.

41. Regarding claims 9 and 28, see discussion for claim 1. Kocsis fails to disclose the multilayer film comprises a solvent free pressure sensitive dispersion adhesive. However, Mientus teaches the pressure -sensitive adhesive can be any including rubber based adhesive, acrylic adhesive, which are solvent pressure sensitive dispersion adhesive, vinyl ether adhesive and silicone adhesives (page 23, line 35, page 24, line 1). Regarding, product by process limitation, "coextrusion" and "flame or corona pretreatment" in claim 9 and 28, Any difference imparted by product by process limitations would have been obvious to one having ordinary skill in the art at the time of the invention was made because where the examiner has found a substantially similar product as in the applied prior art the burden of proof is shifted to the applicant to establish that their product is patentably distinct not the examiner to show the same process of making, see In re Brown, 173 USPQ 685, In re Fessmann, 180 USPQ 324, In re Spada, 15 USPQ2d 1655, In re Fitzgerald, 205 USPQ 594 and MPEP 2113.

42. As to claim 25 and 26, which depends on claim 8, since the feature, "amount of an adhesive layer is 18 to 28 g/m^2 and the unwind force at an unwind speed of 300 mm/min is 1.6 to 4.0 N/cm or the holding power is more than 150 min." set forth in claim 1 and further limited by claim 21 and 22, is optional. Since this feature may be absent, the claimed limitation is taught when the feature is absent. The limitation where there is a primer layer between film layer and adhesive layer has already been addressed above in claim 8.

43. Regarding claim 10, see discussion for claim 1. Kocsis fails to disclose the multilayer film comprises the pressure sensitive adhesive is polyacrylate based. However, Mientus teaches the pressure -sensitive adhesive can be any including rubber based adhesive, acrylic adhesive, which are pressure sensitive dispersion adhesive, vinyl ether adhesive and silicone adhesives (page 23, line 35, page 24, line 1).

44. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the winding tape of Kocsis with the pressure sensitive adhesive that is acrylate based in the multilayer film of Mientus motivated by the desire to have excellent adhesive properties that would adhere the adhesive layer to the film layer. All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable results.

45. Regarding claim 11, see discussion for claim 1. Kocsis fails to disclose that the multilayer film of the winding tape is black. However, Mientus discloses that the

multilayer film can be pigmented with different colors such as white, black, yellow, blue and red (page 41, lines 15-20). Mientus teaches that the multilayer film with the color will give the material scuff resistance and minimize the milkiness appearance without sacrificing sign cutting and weeding and outdoor durability (page 42, lines 4-6).

46. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the winding tape of Kocsis with the pigmented colors of Mientus in the multilayer film motivated by the desire to give the material scuff resistance and minimize the milkiness appearance without sacrificing sign cutting and weeding and outdoor durability. All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable results.

47. Claims 16 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kocsis (US 5300360) as applied to claim 1 above, and further in view of Takeuchi (US 2001/0049022)

48. Regarding claim 16 and 33, see discussion for claim 1. Kocsis fails to disclose that the layer of the winding tape is crosslinked by ionizing radiation. However, Takeuchi mentions that the resin layer of the multilayer film is crosslinked by ionizing radiation (col 9, lines 66-67, col 10, and lines 1-2). Takeuchi teaches that the cross linked layer improves the adhesion between the two layers (col 10, lines 60-62) and helps to achieve strong seals between the layers.

49. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the winding tape including the multilayer film of Kocsis to be crosslinked between the multilayer films as taught by Takeuchi motivated by the desire to improve the adhesion between the layers. All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable results.

50. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kocsis (US 5300360) as applied to claim 1 above, and further in view of Sumida (US 5405565).

51. Regarding claim 24, see discussion for claim 1. Kocsis fails to mention that the tensile strength by the method of Elmendorf in the machine direction is at least four times the tensile strength in the cross direction. However, Sumida mentions the multilayer film having the tensile strength in the machine direction is at least four times the tensile strength in the cross direction (col 21, lines 60-68). Sumida teaches the multilayer film with the tensile strength in the machine direction at least four times the tensile strength in the cross direction would improve the strength of the film and would make it less susceptible to tear (col 22, lines 22-26).

52. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the winding tape of the multilayer film with an adhesive layer of Kocsis to prepare the multilayer film that is hand tearable by having a ratio of tensile strength in the machine direction to be at least four times the tensile strength in the cross direction

of Sumida by using the process conditions and test methods known in the art motivated by the desire to improve the tear properties and strength of the film and make the film less susceptible to tear. All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable results.

Conclusion

53. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RONAK C. PATEL whose telephone number is (571)270-1142. The examiner can normally be reached on Monday to Thursday from 8am-5pm Eastern.

54. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael LaVilla can be reached on 571-272-1539. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

55. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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